

REMARKS

1. Claims Amendments.

Claim 1 has been amended to incorporate subject matter from Claim 4, to clarify the structure of the castor carrier and the floor runner, and to read better. No new matter has been added.

Claims 2 and 3 have been previously cancelled without prejudice.

Claim 4 has been amended to delete the subject matter incorporated into Claim 1 and to read better. No new matter has been added.

Claim 5 has not been amended in this response.

Claims 6 and 7 have been previously cancelled without prejudice.

Claim 8 has been amended to read better. No new matter has been added.

Claim 9 has been previously cancelled without prejudice.

Claims 10 and 11 have been amended to correct the preamble. No new matter has been added.

Claims 12 – 20 have been previously cancelled without prejudice.

New Claim 21 is based on amended Claim 1. No new matter has been added.

New Claims 22-26 correspond to amended Claims 4, 5, 8, 10, and 11, respectively. No new matter has been added.

2. Claims Rejections Under 35 USC 112

The claims have been amended to address the examiner's concerns under 35 USC 112.

3. Claim Rejections Under 35 USC 103

Claims 1, 4, 5, 8, 10, and 11 have been rejected under 35 USC 103(a) by US Patent No. 4,064,592 to Riegelman (Riegelman '592) in view of US Patent No. 5,671,502 to Ezman (Ezman '502). Based on the amendments to Claim 1, Applicant requests reconsideration of this ground for rejection. Applicant requests that the examiner reconsider and withdraw this rejection.

The present castor element, comprising castor carrier 21, castor 12 and securing member 28, is designed to achieve a special operational smoothness and ensure against undesired lifting of the roller element from the runner 13 by virtue of its constructional features. The castor carrier 21 with supporting limbs 22 and its secure cross-connection by means of the castor axle 23 form a very stable spatial bearing structure. The castor 12 is not mounted directly on the stationary castor axle 23, but rather on a hub 25, which is arranged on the castor axle 23 between the supporting limbs 22 of the castor carrier 21 as a supporting element for the castor 12 and securing member 28. The hub 25 also is employed for the rotatable mounting of the securing member 28. The latter has a balanced symmetrical configuration in the longitudinal and transverse direction and is mounted on the common hub 25 with two supporting walls 30 at either side of the castor 12.

The securing member prevents undesired lifting of the wall or door element off of the floor runner 13. In other words, the anchoring of the castor unit in the floor runner 13 is based on an embodiment of the floor runner 13 as a hollow body having runner limbs 17 and a middle guide slot 18. The securing element 28 is provided with hook-like securing means 31, 32, which are arranged in front of and behind the castor 12 at equal distances from the castor axle 23, as shown in the figures. This ensures that, in conjunction with the rotatable mounting of the securing element 28 during normal "operation", no tilting of the securing element can occur in the floor runner 13. The securing element acts as a "seesaw" that can maintain contact with the floor runner 13 proximal to the securing means 31, 32.

On the whole, the embodiment according to the invention ensures that when the sliding door is operated, in other words, during its movement, the securing element is reliably kept from having any effect on the castor unit's operating characteristics. Thus, a dependable securing mechanism is provided to prevent an undesired lifting of the wall or door element off of the floor runner, specifically with no tilting due to off-center forces.

None of the cited references provide for the features of Claim 1. Nor does a combined view of the references of Riegelman '592 and Ezman '502 lead to the castor unit according to the invention.

The castor unit pursuant to Riegelman '592 has a mounting design similar to that of the castor unit of the present application. However, the castor is mounted directly on a transverse, stationary axle. According to the illustration in Fig. 2, this is apparently a slide bearing. But of decisive importance is the design and bearing of the Riegelman '592 securing member 15. This is mounted on the axle 14 to pivot on one side with a limb (plate extension) 28, but outside of the two limbs 12 of the castor carrier. This gives the castor unit an asymmetric design. Forces imparted by the securing member are transferred only one-sidedly and off-center to the end of the axle 14.

Also disadvantageous in the Riegelman '592 device is the design of the securing member or anchoring means. These comprise a duct-like structure 20 with transverse limbs (flanges) 24, 26, which run along the complete length of the securing member. This results in the risk of tilting during normal operation, in other words, during castor movement without lifting off the runner. The securing member 15 can tilt in the longitudinal direction and, due to its asymmetrical fixation, in the transverse direction as well.

In the Office Action, the Examiner listed several features present in Riegelman '592 (bottom of page 3). However, it cannot be said that the features listed under c) are actually present in Riegelman '592. Specifically, the anchoring members 24, 26 extend across the full length of the securing member 15. This cannot be compared to the corresponding feature of Claim 1 as amended (now feature f)). Furthermore, the axle presented in Riegelman '592 is not equivalent to a hub arranged between the limbs of the castor carrier 21, although this does not decisively matter as a detail. Nor can the securing member 15 of Riegelman '592 be designated as pivotable in the technical sense, in which the hook-like anchoring members engage in the runner on one side or the other as necessary. In Riegelman '592 the anchoring members act along its full length, thus precluding any pivot-like effect.

The castor unit pursuant to Ezman '502 is a rigid structure on the whole, which is problematical due to the lack of mobility of the anchoring hooks 26. In case of low dimensional tolerances the hook-like members 27, 28, 31, 32 are able to make contact with the runner and create a permanent sliding contact, which is undesirable.

It is neither obvious nor possible to utilize the anchoring members of Ezman '502 in the castor unit of Riegelman '592. Apart from the fact that the shape of the runner would also have to be incorporated in Riegelman '592, the pivotable securing member 15 of Riegelman '592, due to reasons of constructive design, is not suited for accommodating hook-like anchoring members of the Ezman '502 embodiment. Namely, what is decisive here is that these anchoring members are arranged in the center plane of the castor unit so that they can enter into the likewise centered guide slot 18. In incorporating the hook-like anchoring members of Ezman '502 to the castor unit of Riegelman '592, the person of ordinary skill would be faced by the insolvable question as to how to attach the members in question to the securing member 15 of Riegelman '592. In practice, the person of ordinary skill would not consider such an application of these selected details because they represent different solutions.

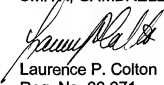
As such, Applicant submits that the present invention as currently claimed is not obvious in view of the cited art, and request the withdrawal of this grounds for rejection.

CONCLUSION

Applicant submits that the patent application is in proper condition for allowance, and respectfully requests such action.

If the Commissioner or the Examiner has any questions that can be resolved over the telephone, please contact the patent attorney of record and the new contact information below.

Respectfully submitted,
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